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United States Patent [19][11] **Patent Number:** **5,528,743****Tou et al.**[45] **Date of Patent:** **Jun. 18, 1996**[54] **METHOD AND APPARATUS FOR
INSERTING TEXT ON A PEN-BASED
COMPUTER SYSTEM**[75] Inventors: **Frederich N. Tou**, Cupertino; **Stephen
P. Capps**, San Carlos, both of Calif.[73] Assignee: **Apple Computer, Inc.**, Cupertino,
Calif.[21] Appl. No.: **180,846**[22] Filed: **Jan. 12, 1994**Soviero, Marcelle M., "Your World According to Newton",
Sep. 1992, Popular Science Magazine.Abatemarco, Fred, "From the Editor", Sep. 1992, Popular
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Macintosh User's Guide, 1991.

Primary Examiner—Heather R. Herndon*Assistant Examiner*—Joseph H. Feild*Attorney, Agent, or Firm*—Hickman Beyer & Weaver**Related U.S. Application Data**[63] Continuation-in-part of Ser. No. 70,096, May 27, 1993, Pat.
No. 5,479,596.[51] **Int. Cl.⁶** **G06T 7/00; G06F 17/24**[52] **U.S. Cl.** **395/148; 364/419.17; 382/181;**
382/182; 382/292; 345/179; 395/146[58] **Field of Search** 395/144, 146,
395/148-151; 382/22, 30, 61, 173, 176-179,
181-182, 292; 364/419.17; 345/179[56] **References Cited****U.S. PATENT DOCUMENTS**

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Apr. 22, 1992, San Jose Mercury News.Weinman, Liza and Moran, Tom, "A Step Toward the
Future", Aug. 1992, Macworld Magazine.[57] **ABSTRACT**

A method and apparatus in accordance with the present invention comprises the process and means for receiving input strokes made with a stylus on a screen of a pen-based computer and determining if the strokes comprise a text object. When the strokes do form a text object, a rating for each existing displayed paragraph is assigned to identify a probability level that an insert location is within the paragraph. Determining a rating involves comparing the bounds of the text object to extended bounds of the existing paragraph, and the input strokes of the text object to the input strokes of the preceding text object. When the rating is completed for each paragraph, an insert location within the highest rated or most probable existing paragraph is then identified, and the text object is inserted at this insert location. A new paragraph is formed with the text object at a location based on the input strokes when a most probable paragraph is not identified.

37 Claims, 7 Drawing Sheets